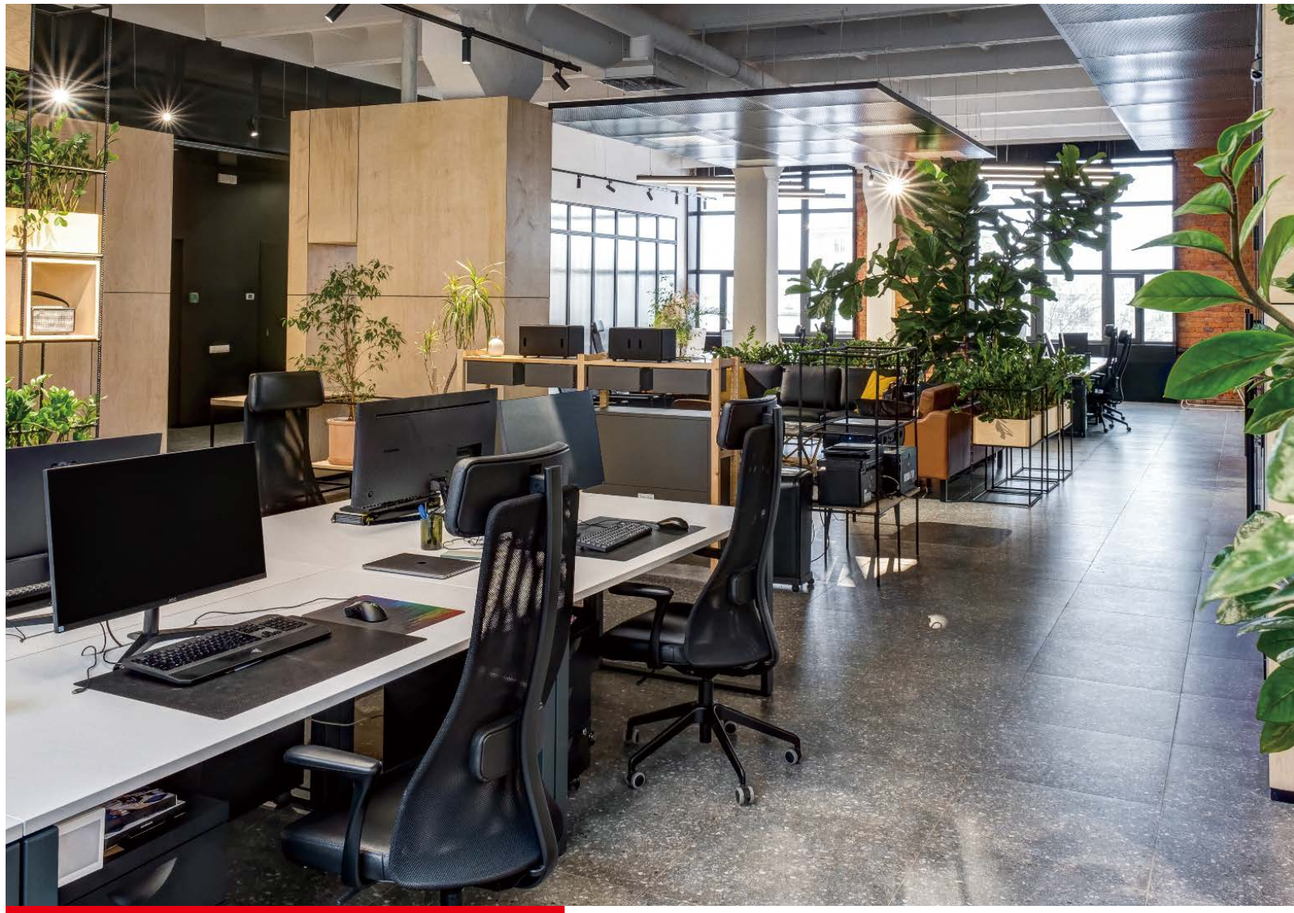
MITSUBISHI ELECTRIC
Changes for the Better

# ENERGY RECOVERY VENTILATORS



Lossnay

## RVX3 SERIES

LOSSNAY ventilation systems are renowned industry-wide for their efficiency. They offer environment friendly energy recovery and enable air conditioning systems to simultaneously provide optimum room comfort and energy savings.

**MITSUBISHI ELECTRIC CORPORATION**
www.MitsubishiElectric.com

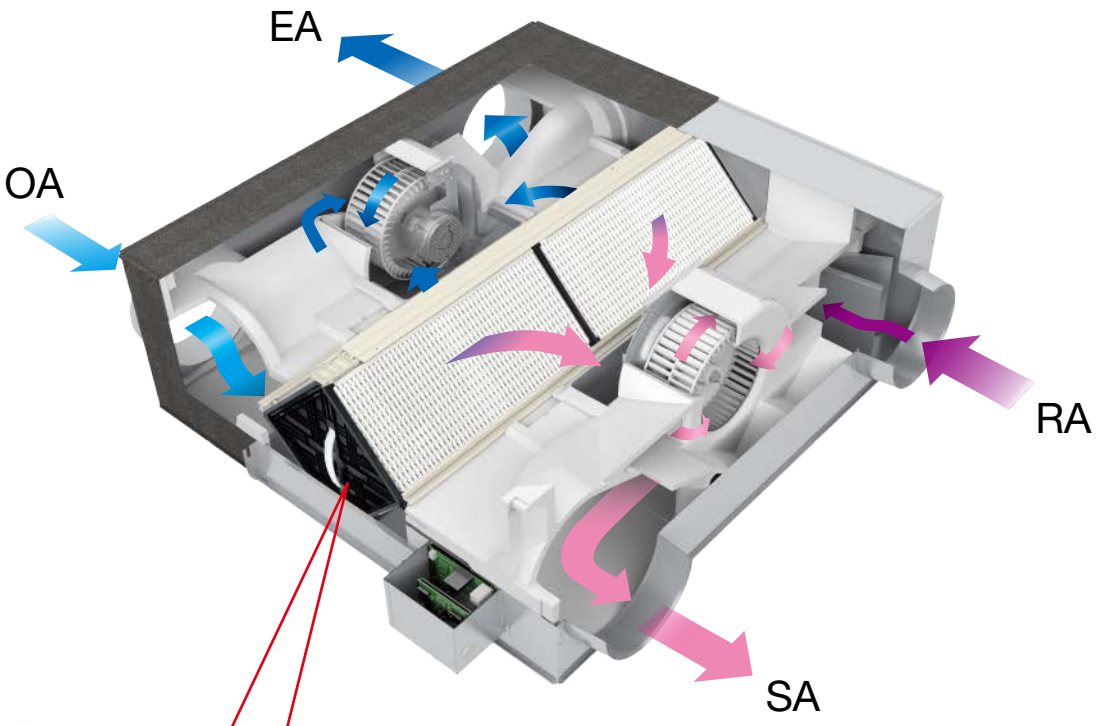
S-175-2-CA892-A NK2303 Printed in Japan (IP)

New publication, effective Mar. 2023.
Specifications are subject to change without notice.

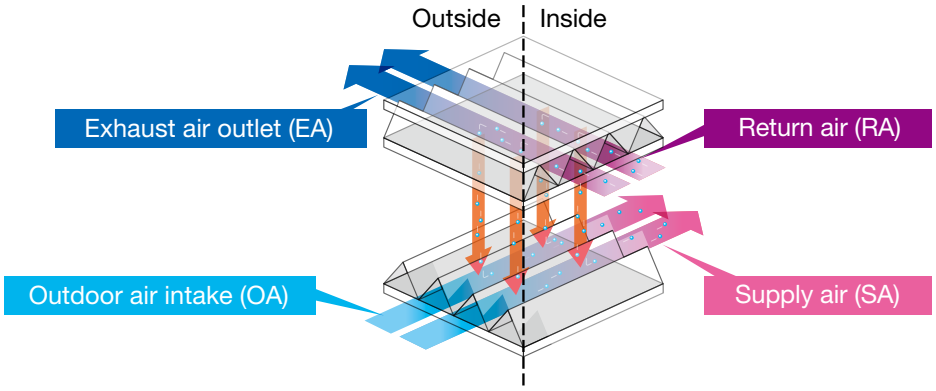
# LOSSNAY System

## Indoor air quality inside a building is optimized through temperature and humidity exchange by RVX3 series

RVX3 series is a total heat exchange ventilation system that uses paper characteristics to perform temperature (sensible heat) and humidity (latent heat) exchange.



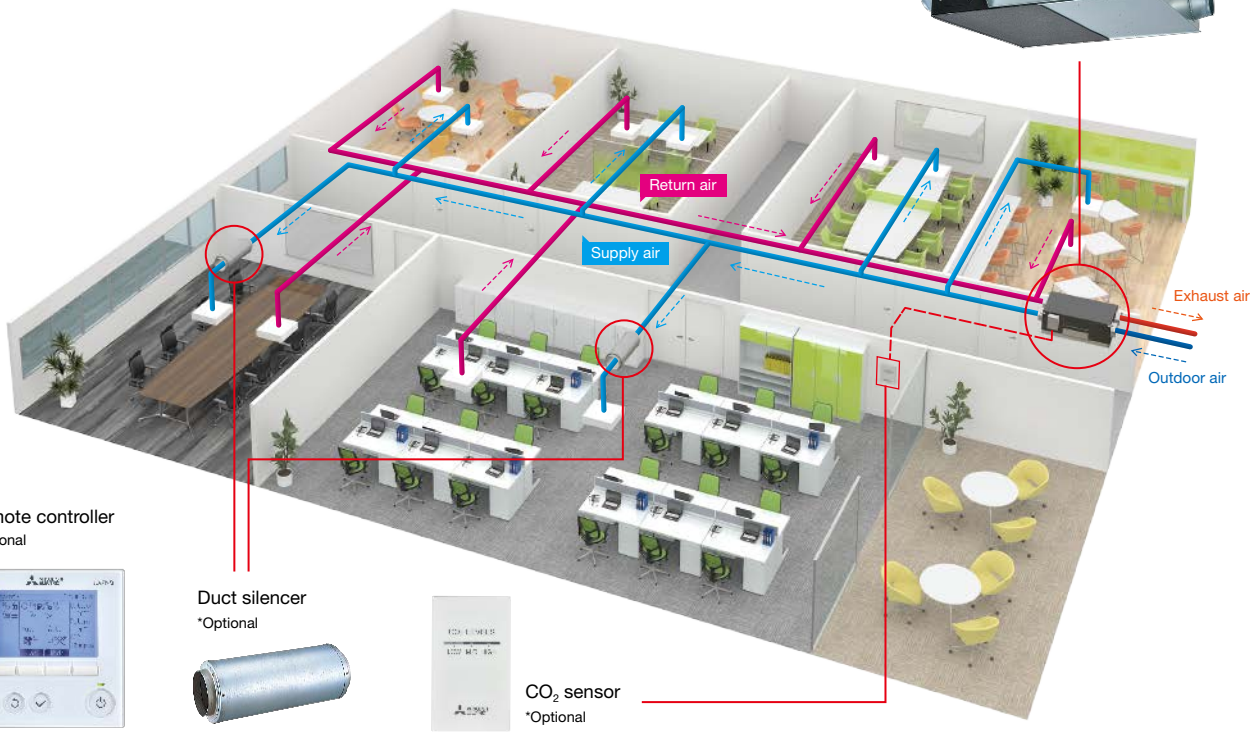

**Concept of sensible heat and latent heat exchange using LOSSNAY core**




LOSSNAY has steadily evolved since it was first launched in 1970, by consistently discerning in advance the diversifying air conditioning needs of the times. The technology is used in a wide range of applications, and LOSSNAY units are widely adopted in residences, office buildings, hospitals, schools, etc.

# RVX3 series solution

Environment friendly total energy recovery enables air conditioning systems to simultaneously provide optimum room comfort and energy savings.




Remote controller
*Optional

Duct silencer
*Optional





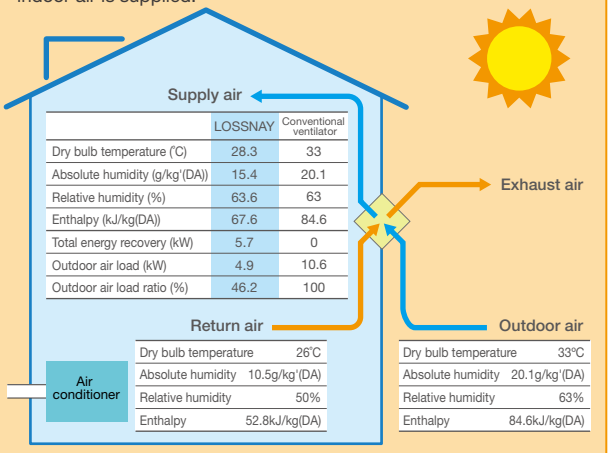
$CO_2$ sensor
*Optional

# What is improved by introducing LOSSNAY?

## ■ Ventilation with maximized comfort

### In summer

Air similar to the conditions of the cooled (dehumidified) indoor air is supplied.




| | LOSSNAY | Conventional ventilator |
|---|---|---|
| Dry bulb temperature (˚C) | 28.3 | 33 |
| Absolute humidity (g/kg'(DA)) | 15.4 | 20.1 |
| Relative humidity (%) | 63.6 | 63 |
| Enthalpy (kJ/kg(DA)) | 67.6 | 84.6 |
| Total energy recovery (kW) | 5.7 | 0 |
| Outdoor air load (kW) | 4.9 | 10.6 |
| Outdoor air load ratio (%) | 46.2 | 100 |

| | |
|---|---|
| Dry bulb temperature | 26˚C |
| Absolute humidity | 10.5g/kg'(DA) |
| Relative humidity | 50% |
| Enthalpy | 52.8kJ/kg(DA) |

| | |
|---|---|
| Dry bulb temperature | 33˚C |
| Absolute humidity | 20.1g/kg'(DA) |
| Relative humidity | 63% |
| Enthalpy | 84.6kJ/kg(DA) |

**Heat recovery calculation**

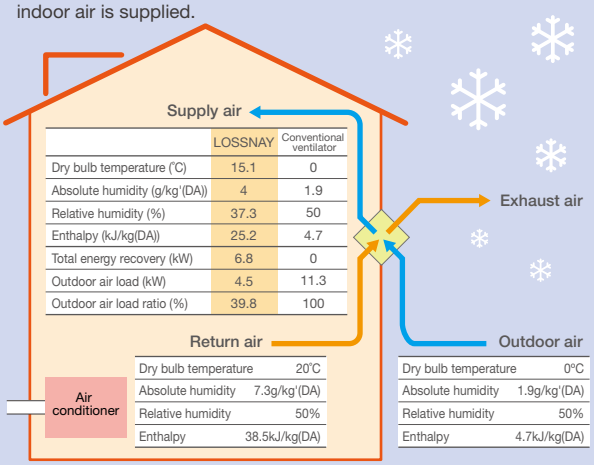
Indoor supply air temperature (˚C) = Outdoor temperature (˚C) - { Outdoor temperature (˚C) - Indoor temperature (˚C) } × Temp. recovery efficiency (%)

Calculation example: 28.3˚C = 33˚C - (33˚C - 26˚C) × 67.5%

*The above applies to the case of LGH-100RVX3-E. (1000m³/h)

### In winter

Air similar to the conditions of the heated (humidified) indoor air is supplied.




| | LOSSNAY | Conventional ventilator |
|---|---|---|
| Dry bulb temperature (˚C) | 15.1 | 0 |
| Absolute humidity (g/kg'(DA)) | 4 | 1.9 |
| Relative humidity (%) | 37.3 | 50 |
| Enthalpy (kJ/kg(DA)) | 25.2 | 4.7 |
| Total energy recovery (kW) | 6.8 | 0 |
| Outdoor air load (kW) | 4.5 | 11.3 |
| Outdoor air load ratio (%) | 39.8 | 100 |

| | |
|---|---|
| Dry bulb temperature | 20˚C |
| Absolute humidity | 7.3g/kg'(DA) |
| Relative humidity | 50% |
| Enthalpy | 38.5kJ/kg(DA) |

| | |
|---|---|
| Dry bulb temperature | 0˚C |
| Absolute humidity | 1.9g/kg'(DA) |
| Relative humidity | 50% |
| Enthalpy | 4.7kJ/kg(DA) |

**Heat recovery calculation**

Indoor supply air temperature (˚C) = { Indoor temperature (˚C) - Outdoor temperature (˚C) } × Temp. recovery efficiency (%) + Outdoor temperature (˚C)

Calculation example: 15˚C = (20˚C - 0˚C) × 75.5% + 0˚C

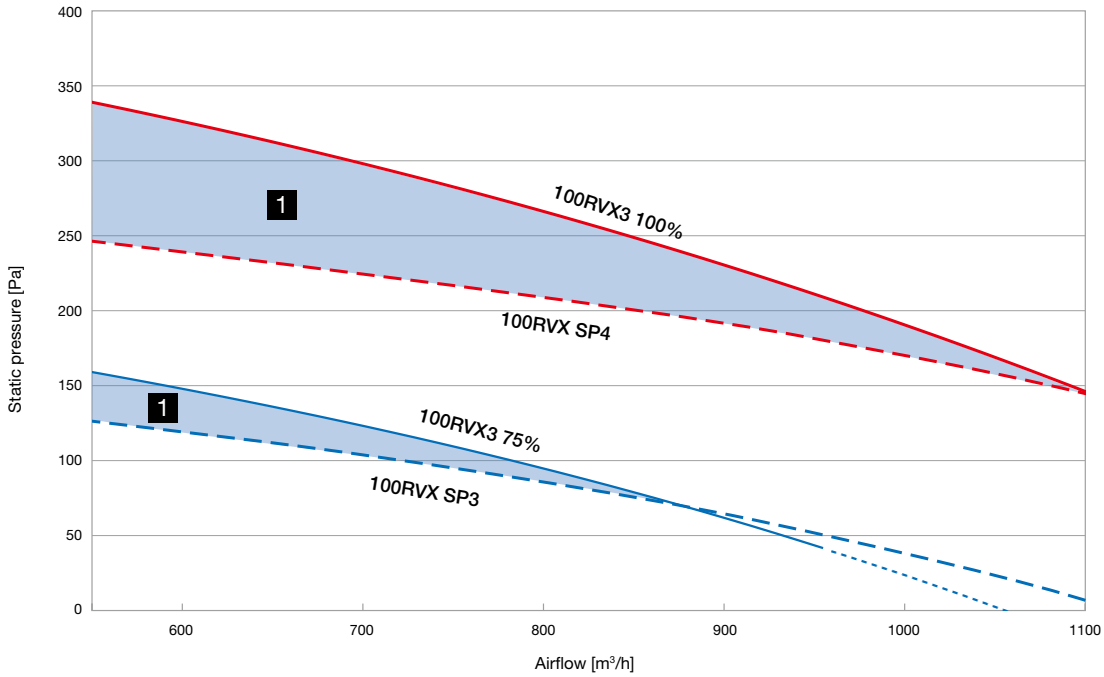
*The above applies to the case of LGH-100RVX3-E. (1000m³/h)

# Four Key Features

## 01 High static pressure

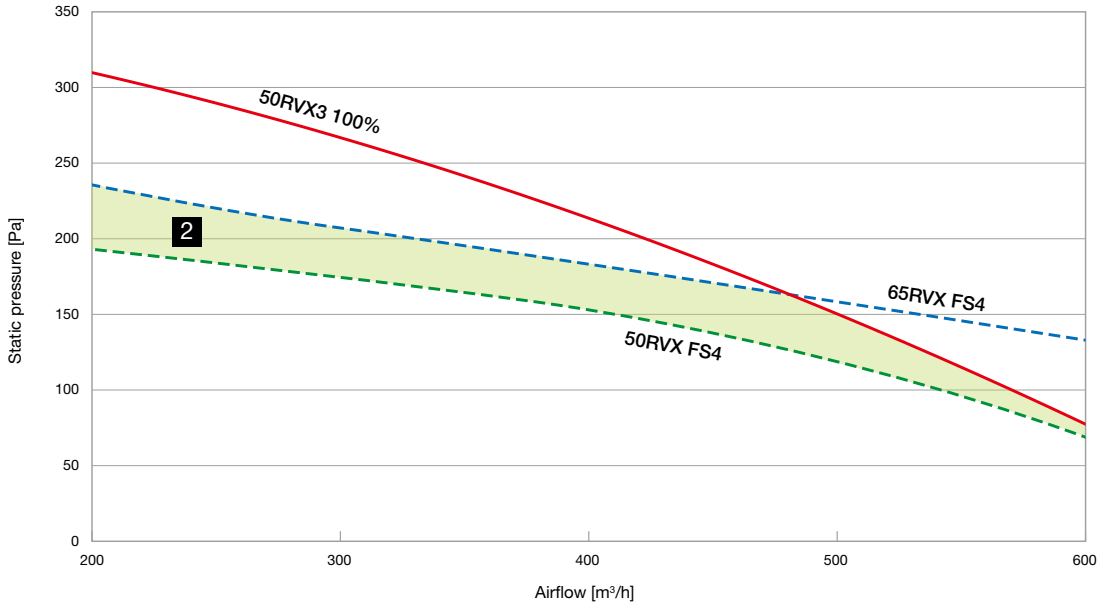
External static pressure has been improved compared to previous models. Accompanying this increase in external static pressure, the selection range of models and filters has also expanded. Furthermore, flexible duct work becomes possible.

*The dotted lines of fan curve are reference value that cannot be measured.




1 Increased static pressure.

Smaller models can be chosen compared to previous models.



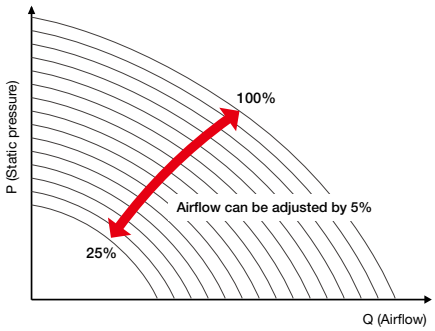

2 Where 65RVX had to be chosen previously, 50RVX3 (one size down) may now be chosen, owing to its increased external static pressure.

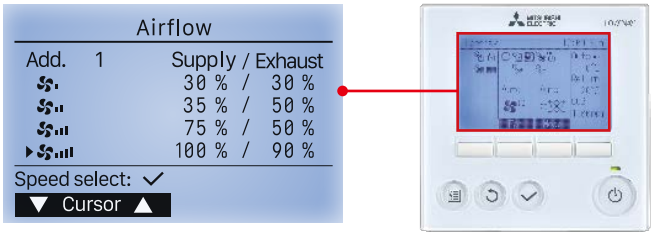
# 02 Controllability

## 1. Improved airflow range

**Variable air control**

The default fan speed value (Fan speed 1: 25%, Fan speed 2: 50%, Fan speed 3: 75%, and Fan speed 4: 100%) of both supply air and exhaust air can be adjusted flexibly. Within the range between 25% and 100%, airflow can be adjusted by 5% increments to satisfactorily meet the designed airflow rate.

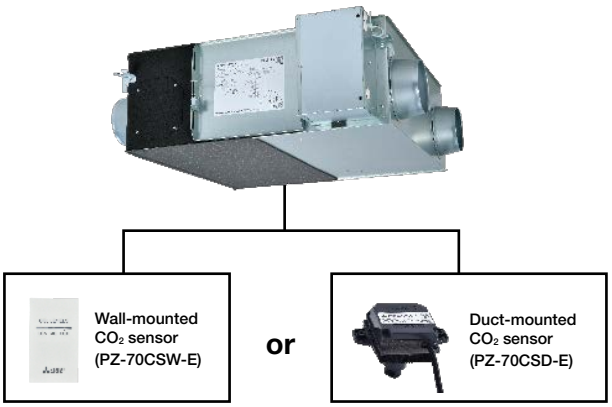



PZ-62DR-EA/EB

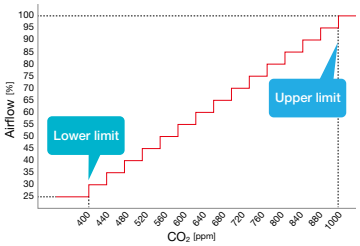
## 2. New $CO_2$ sensor

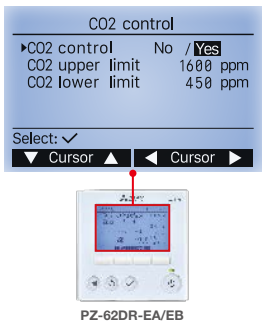
A $CO_2$ sensor connected directly to a LOSSNAY RVX3 unit optimizes the fan speed according to the levels of $CO_2$ detected. It improves total heat exchange efficiency and contributes to energy savings.




Two types of $CO_2$ sensors are available: wall-mounted and duct-mounted types.
Power is supplied to the $CO_2$ sensor from the LOSSNAY board.

Fan speed automatically changes from 25% to 100% (16 steps) depending on the level of $CO_2$ concentration.



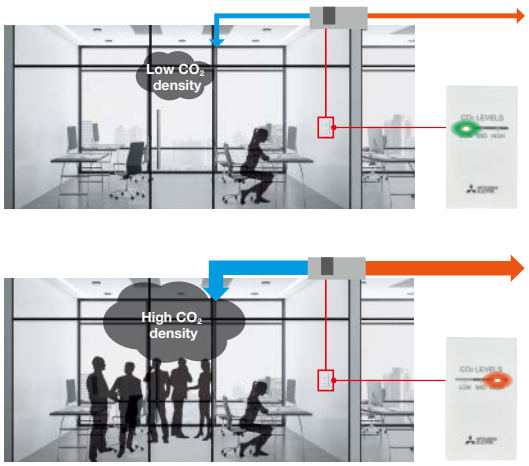




PZ-62DR-EA/EB

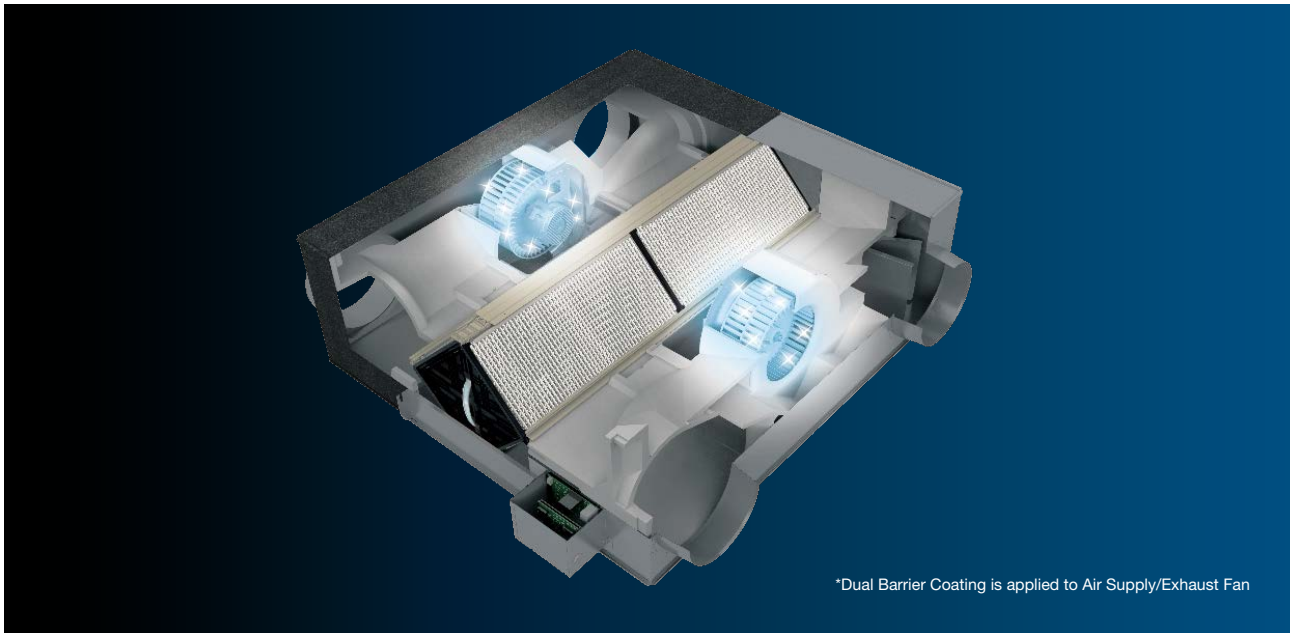
Both upper and lower limits can be adjusted.
Upper limit: from 600 to 2000 ppm.
Lower limit: from 300 to (upper limit – 300) ppm.
50 ppm increments.

### Automatic operation with $CO_2$ sensor

Fan speed automatically changes depending on $CO_2$ concentration.



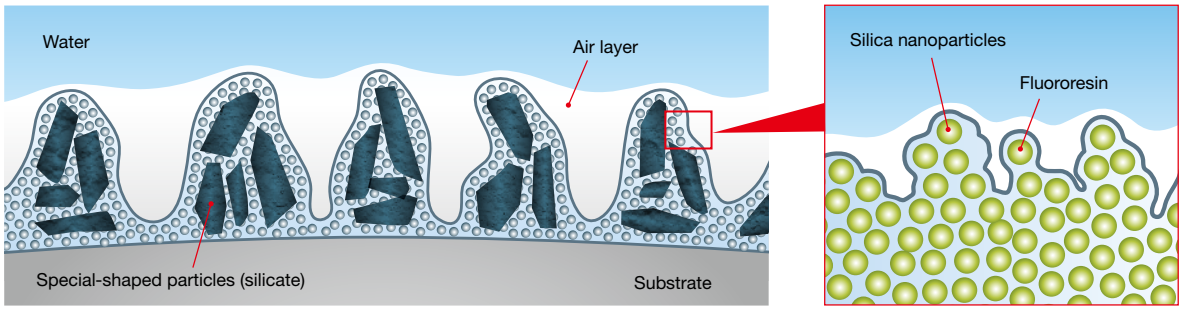
# 03 Dual Barrier Coating




## Dual barrier coating

A water-repellent effect is achieved by creating a coating film that has nano-sized concave-convex structures formed by silica nanoparticles made of water-repellent fluororesin and micron-sized concave-convex structures formed by combining micron-sized special-shaped particles (silicate) with the silica nanoparticles. At the same time, the uneven structure forms an air layer that suppresses the adhesion of dust and sand that contain a lot of humidity, reducing the amount of dirt that adheres to the substrate.

**Conceptual image of dual barrier coating**




# 04 Upgraded filters

The standard filter has been improved from Coarse 35% to Coarse 60% (measured by ISO16890: 2016).

## PZ-**RF3-E

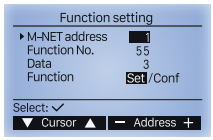
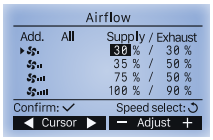
**Standard filter**

# For Installer

## 01 Improved workability

### 1. Commissioning time

Using a designed motor and new remote controller, a genius algorithm is introduced to reduce the time of airflow adjustment.

| | RVX series (PZ-61DR-E) | RVX3 series (PZ-62DR-EA/EB) |
|---|---|---|
| Motor | Fan speed was not adjusted quickly. | Fan speed is adjusted quickly by using a designed motor. |
| Screen setting |  <br>Fan speed can be set by Function setting which needs the setting table. (Not intuitive) |  <br>Fan speed can be set by new display “Airflow setting” where user can set intuitively. |

For example, when checking airflow volume twice in SA side ⟶ Commissioning time is reduced by 75%*1

*1 The average reduction rate when our workers actually install LGH-100RVX-E and LGH-100RVX3-E.
Setting work involves changing the air volume of supply/exhaust air, and the amount of the time that can be reduced varies depending on the operator and work conditions.

| | RVX series (PZ-61DR-E) | | | RVX3 series (PZ-62DR-EA/EB) | | |
|---|---|---|---|---|---|---|
| SA | FS4 | Adjust to original speed | 173s | 100% | Adjust to original speed | 20s |
| | | Check airflow volume ⟶ too much | – | | Check airflow volume ⟶ too much | – |
| | OFF | Fan speed setting ⟶ FS4 → FS3+3 | 61s | OFF | Airflow setting ⟶ 100% → 90% | 40s |
| | FS3+3 | Adjust to set speed | 94s | 90% | Adjust to set speed | 20s |
| | | Check airflow volume ⟶ too much | – | | Check airflow volume ⟶ too much | – |
| | OFF | Fan speed setting ⟶ FS3+3 → FS3+1 | 61s | OFF | Airflow setting ⟶ 90% → 80% | 40s |
| | FS3-1 | Adjust to set speed | 162s | 80% | Adjust to set speed | 20s |
| | | Check airflow volume ⟶ OK | – | | Check airflow volume ⟶ OK | – |
| | | Total | 551s | | Total | 140s |

### 2. Vertical installation

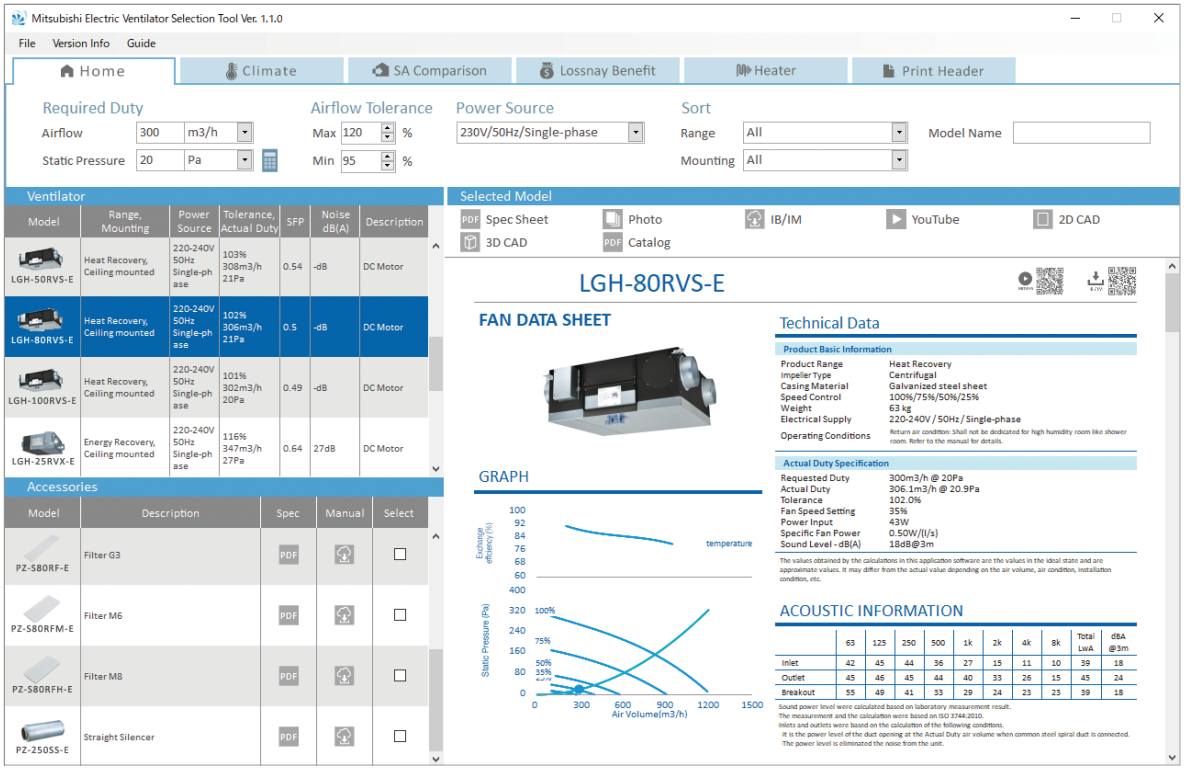
By enabling vertical installation, the choices of installation location have expanded.

RVX3 can be installed vertically using optional parts.
It can be installed practically anywhere, such as in the machine room, the edges of a room, and so on.
Please follow the installation manual when you install RVX3 series vertically.

| Model name | LOSSNAY |
|---|---|
| PZ-1VS-E | LGH-15RVX3-E |
| | LGH-25RVX3-E |
| | LGH-35RVX3-E |
| | LGH-50RVX3-E |
| PZ-2VS-E | LGH-65RVX3-E |
| | LGH-80RVX3-E |
| | LGH-100RVX3-E |

# Mitsubishi Electric Ventilator Selection Tool

Appropriate information can be obtained from the required air volume and required static pressure.

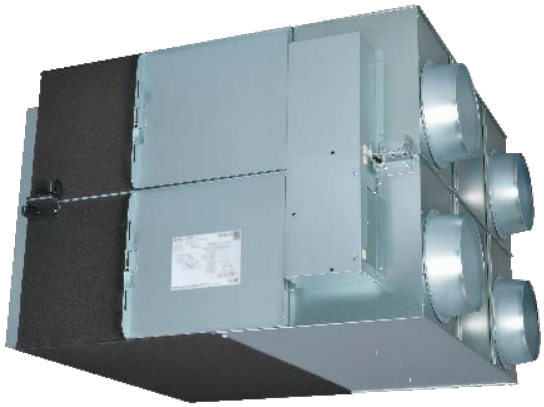



*This picture is an example of LGH-80RVS-E, which is a different model from RVX3 series.

# Specifications & Dimensions

## RVX3 series lineup

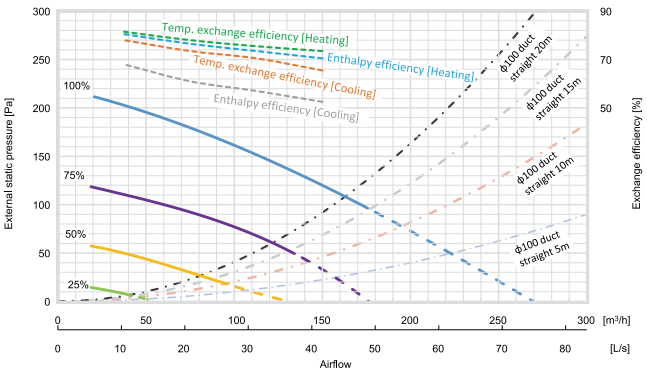
LGH-15RVX3-E
LGH-25RVX3-E
LGH-35RVX3-E
LGH-50RVX3-E
LGH-65RVX3-E
LGH-80RVX3-E
LGH-100RVX3-E
LGH-160RVX3-E
LGH-200RVX3-E



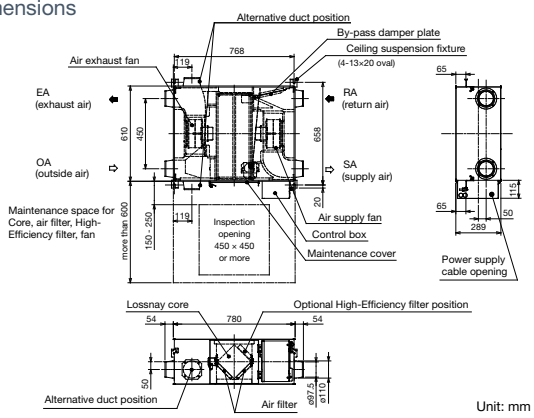
| Model | | LGH-15RVX3-E | | | | |
|---|---|---|---|---|---|---|
| **Specifications** | | | | | | |
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 55 | 30 | 15 | 10 | ISO 16494-1: 2022 |
| Airflow | (m³/h) | 150 | 113 | 75 | 38 | |
| | (L/s) | 42 | 31 | 21 | 10 | |
| Specific fan power [W/(L/s)] | | 1.32 | 0.96 | 0.72 | 0.96 | |
| External static pressure (Pa) | | 120 | 68 | 30 | 8 | |
| Temperature exchange efficiency (%) | Heating | 73.5 | 75.5 | 78.0 | 81.5 | |
| | Cooling | 65.5 | 70.5 | 73.5 | 78.0 | |
| Enthalpy exchange efficiency (%) | Heating | 70.5 | 73.5 | 76.5 | 80.5 | |
| | Cooling | 52.5 | 57.0 | 61.0 | 68.0 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 27.0 | 22.0 | 18.0 | 17.0 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 20 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

•For LGH-RVX3 series
The input power, the efficiency and the noise are based on the rating air volume, 230V/50Hz and horizontal installation.

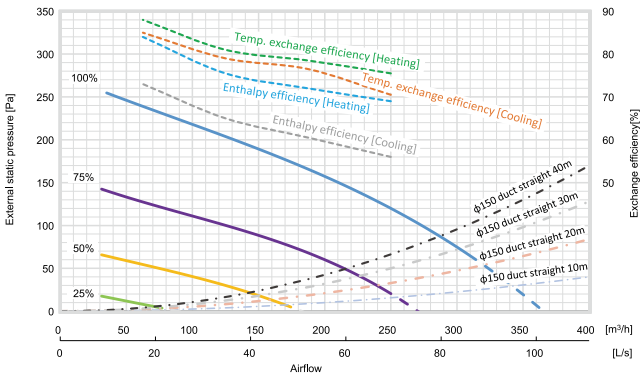
## Model LGH-25RVX3-E

### Specifications

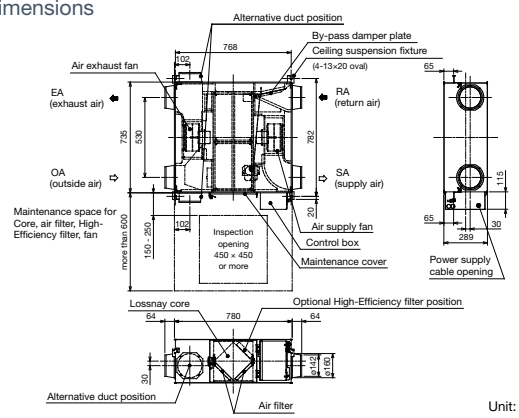
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 75 | 42 | 21 | 11 | ISO 16494-1: 2022 |
| Airflow | ($m^3$/h) | 250 | 188 | 125 | 63 | |
| | (L/s) | 69 | 52 | 35 | 17 | |
| Specific fan power [W/(L/s)] | | 1.08 | 0.81 | 0.60 | 0.63 | |
| External static pressure (Pa) | | 120 | 68 | 30 | 8 | |
| Temperature exchange efficiency (%) | Heating | 75.5 | 78.5 | 81.0 | 88.0 | |
| | Cooling | 70.5 | 76.5 | 79.0 | 85.0 | |
| Enthalpy exchange efficiency (%) | Heating | 69.0 | 72.0 | 75.5 | 84.0 | |
| | Cooling | 56.0 | 60.5 | 65.0 | 73.0 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 30.5 | 25.0 | 19.5 | 17.0 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 22 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

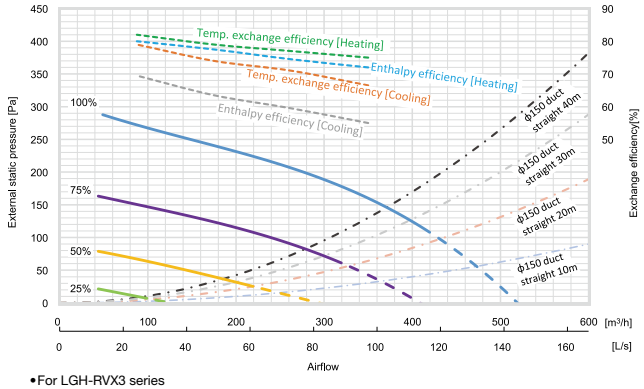
## Model LGH-35RVX3-E

### Specifications

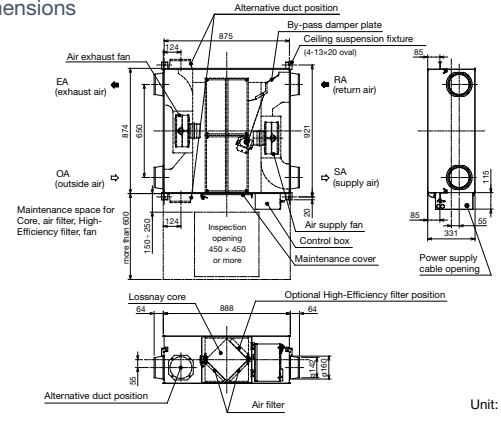
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 120 | 61 | 29 | 15 | ISO 16494-1: 2022 |
| Airflow | ($m^3$/h) | 350 | 263 | 175 | 88 | |
| | (L/s) | 97 | 73 | 49 | 24 | |
| Specific fan power [W/(L/s)] | | 1.23 | 0.84 | 0.60 | 0.62 | |
| External static pressure (Pa) | | 160 | 90 | 40 | 10 | |
| Temperature exchange efficiency (%) | Heating | 75.0 | 77.0 | 79.0 | 82.0 | |
| | Cooling | 66.5 | 71.0 | 74.0 | 79.0 | |
| Enthalpy exchange efficiency (%) | Heating | 72.0 | 74.5 | 77.5 | 80.0 | |
| | Cooling | 55.0 | 59.5 | 63.5 | 69.5 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 30.5 | 24.5 | 19.0 | 17.0 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 30 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

•For LGH-RVX3 series
The input power, the efficiency and the noise are based on the rating air volume, 230V/50Hz and horizontal installation.

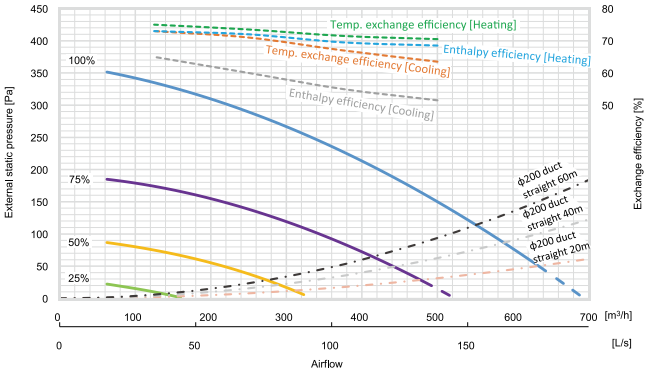
## Model LGH-50RVX3-E

### Specifications

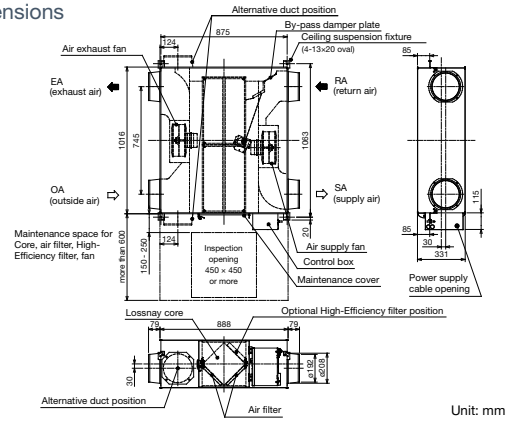
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 185 | 81 | 34 | 15 | ISO 16494-1: 2022 |
| Airflow | ($m^3$/h) | 500 | 375 | 250 | 125 | |
| | (L/s) | 139 | 104 | 69 | 35 | |
| Specific fan power [W/(L/s)] | | 1.33 | 0.78 | 0.49 | 0.43 | |
| External static pressure (Pa) | | 150 | 85 | 38 | 10 | |
| Temperature exchange efficiency (%) | Heating | 70.5 | 71.5 | 73.5 | 75.0 | |
| | Cooling | 63.5 | 67.0 | 71.0 | 73.0 | |
| Enthalpy exchange efficiency (%) | Heating | 68.5 | 69.5 | 72.0 | 73.0 | |
| | Cooling | 51.5 | 55.0 | 60.0 | 65.0 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 35.0 | 27.0 | 21.0 | 17.0 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 33 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

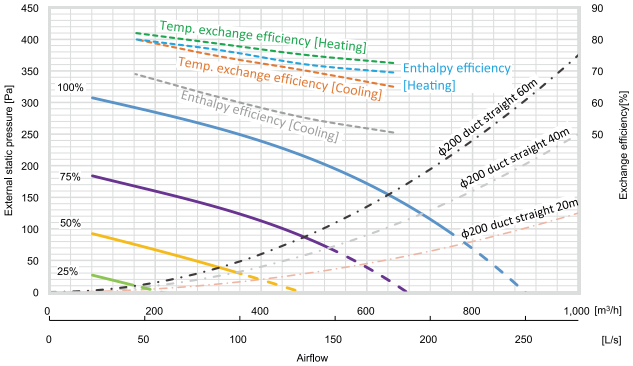
## Model LGH-65RVX3-E

### Specifications

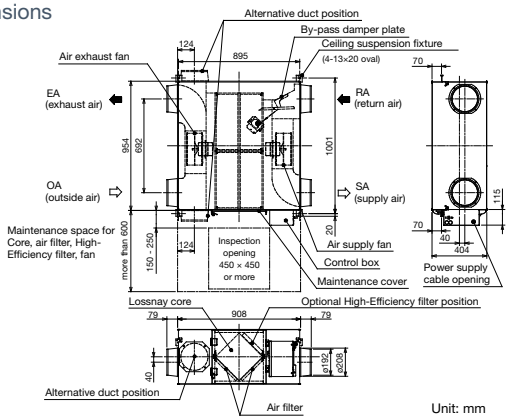
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 245 | 120 | 51 | 20 | EN13053: 2019 |
| Airflow | ($m^3$/h) | 650 | 488 | 325 | 163 | |
| | (L/s) | 181 | 135 | 90 | 45 | |
| Specific fan power [W/(L/s)] | | 1.36 | 0.89 | 0.56 | 0.44 | |
| External static pressure (Pa) | | 150 | 85 | 38 | 10 | |
| Temperature exchange efficiency (%) | Heating | 72.5 | 75.0 | 78.5 | 82.0 | EN308: 2022 |
| | Cooling | 65.0 | 70.0 | 74.5 | 80.0 | |
| Enthalpy exchange efficiency (%) | Heating | 69.5 | 72.0 | 76.5 | 80.0 | |
| | Cooling | 50.5 | 55.0 | 61.5 | 69.0 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 37.5 | 31.5 | 24.0 | 17.5 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 41 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

•For LGH-RVX3 series
The input power, the efficiency and the noise are based on the rating air volume, 230V/50Hz and horizontal installation.

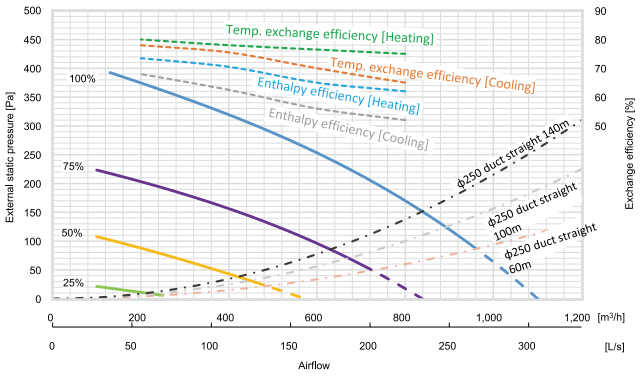
## Model LGH-80RVX3-E

### Specifications

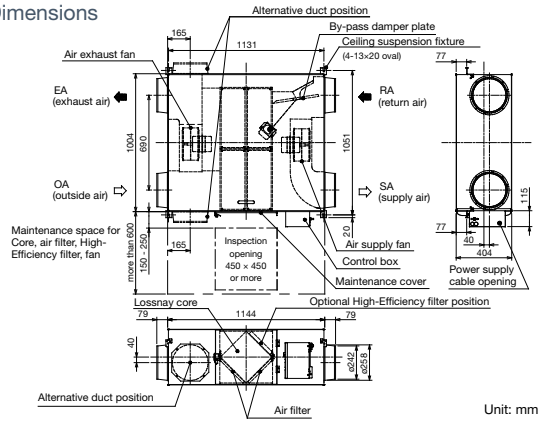
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 343 | 160 | 64 | 23 | EN13053: 2019 |
| Airflow | ($m^3$/h) | 800 | 600 | 400 | 200 | |
| | (L/s) | 222 | 167 | 111 | 56 | |
| Specific fan power [W/(L/s)] | | 1.54 | 0.96 | 0.58 | 0.41 | |
| External static pressure (Pa) | | 170 | 96 | 43 | 11 | |
| Temperature exchange efficiency (%) | Heating | 75.0 | 76.5 | 78.0 | 80.0 | EN308: 2022 |
| | Cooling | 65.0 | 70.0 | 75.5 | 78.0 | |
| Enthalpy exchange efficiency (%) | Heating | 62.0 | 65.0 | 70.5 | 73.5 | |
| | Cooling | 52.0 | 56.0 | 62.5 | 68.0 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 39.0 | 33.5 | 25.0 | 18.0 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 47 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

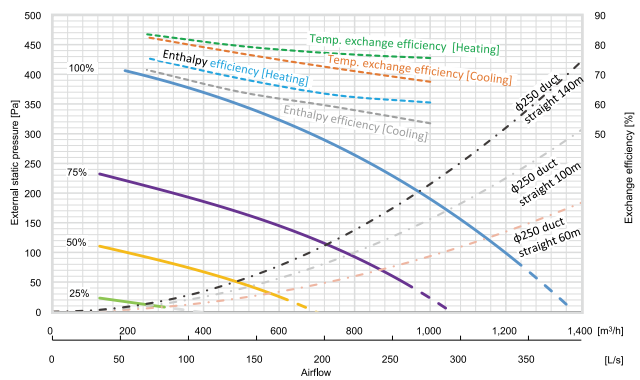
## Model LGH-100RVX3-E

### Specifications

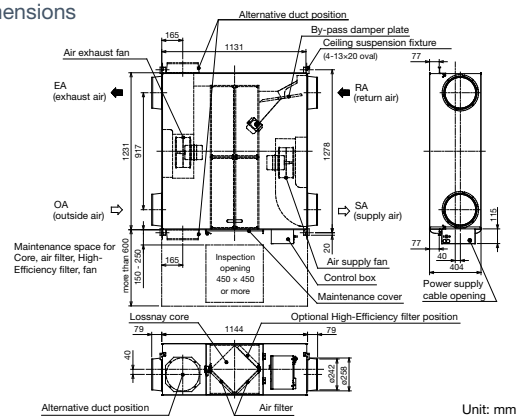
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 438 | 210 | 83 | 27 | EN13053: 2019 |
| Airflow | ($m^3$/h) | 1000 | 750 | 500 | 250 | |
| | (L/s) | 278 | 208 | 139 | 69 | |
| Specific fan power [W/(L/s)] | | 1.58 | 1.01 | 0.60 | 0.39 | |
| External static pressure (Pa) | | 190 | 107 | 48 | 12 | |
| Temperature exchange efficiency (%) | Heating | 75.5 | 77.0 | 79.5 | 83.5 | EN308: 2022 |
| | Cooling | 67.5 | 72.0 | 77.0 | 82.5 | |
| Enthalpy exchange efficiency (%) | Heating | 60.5 | 63.0 | 68.5 | 75.5 | |
| | Cooling | 53.5 | 59.0 | 64.0 | 71.5 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 40.0 | 35.0 | 27.0 | 18.5 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 53 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

•For LGH-RVX3 series
The input power, the efficiency and the noise are based on the rating air volume, 230V/50Hz and horizontal installation.

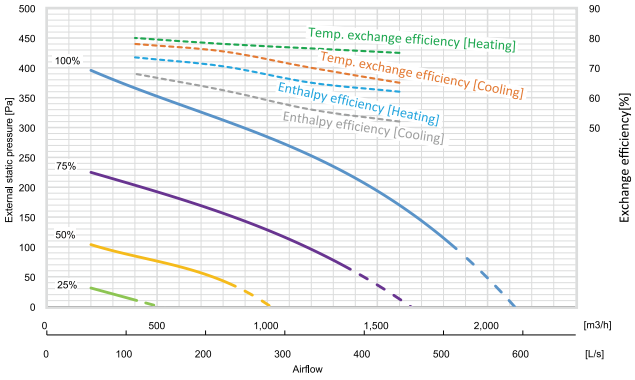
## Model LGH-160RVX3-E

### Specifications

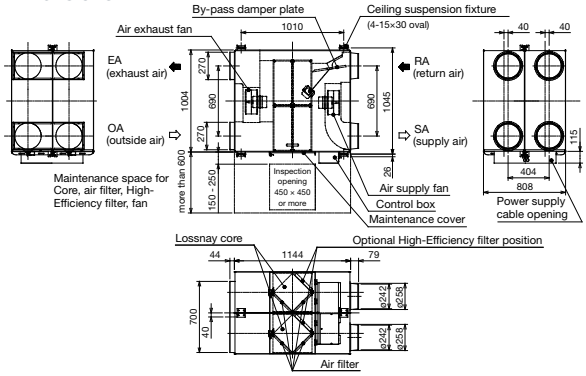
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 687 | 324 | 128 | 45 | EN13053: 2019 |
| Airflow | ($m^3$/h) | 1600 | 1200 | 800 | 400 | |
| | (L/s) | 444 | 333 | 222 | 111 | |
| Specific fan power [W/(L/s)] | | 1.55 | 0.97 | 0.58 | 0.41 | |
| External static pressure (Pa) | | 170 | 96 | 43 | 11 | |
| Temperature exchange efficiency (%) | Heating | 75.0 | 76.5 | 78.0 | 80.0 | EN308: 2022 |
| | Cooling | 65.0 | 70.0 | 75.5 | 78.0 | |
| Enthalpy exchange efficiency (%) | Heating | 62.0 | 65.0 | 70.5 | 73.5 | |
| | Cooling | 52.0 | 56.0 | 62.5 | 68.0 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 41.0 | 35.0 | 26.0 | 18.0 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 96 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

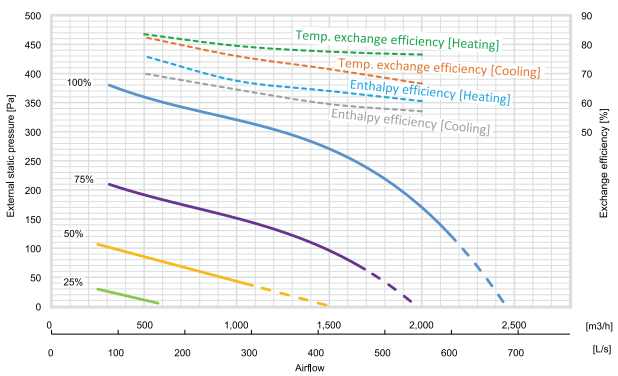
## Model LGH-200RVX3-E

### Specifications

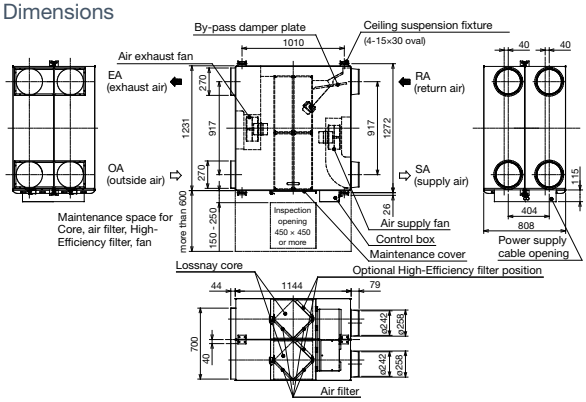
| | | | | | | |
|---|---|---|---|---|---|---|
| Electrical power supply | | 220-240V/50Hz, 220V/60Hz | | | | |
| Fan speed | | 4 | 3 | 2 | 1 | Test condition |
| Default Airflow setting | | 100% | 75% | 50% | 25% | |
| Input power (W) | | 855 | 416 | 163 | 57 | EN13053: 2019 |
| Airflow | ($m^3$/h) | 2000 | 1500 | 1000 | 500 | |
| | (L/s) | 556 | 417 | 278 | 139 | |
| Specific fan power [W/(L/s)] | | 1.54 | 1.00 | 0.59 | 0.41 | |
| External static pressure (Pa) | | 170 | 96 | 43 | 11 | |
| Temperature exchange efficiency (%) | Heating | 76.5 | 77.5 | 79.5 | 83.5 | EN308: 2022 |
| | Cooling | 66.5 | 71.5 | 76.0 | 82.5 | |
| Enthalpy exchange efficiency (%) | Heating | 60.5 | 64.0 | 67.5 | 76.0 | |
| | Cooling | 57.0 | 59.5 | 64.5 | 70.0 | |
| Noise (dB) (Measured at 1.5m under the center of the unit in an anechoic chamber) | | 41.5 | 36.0 | 27.5 | 16.0 | A-weighted sound pressure level |
| Exhaust air transfer ratio (%) | | 5 | | | | EN308:2022/FS3 |
| Weight (kg) | | 108 | | | | |

### Characteristic curves

*The dotted lines of fan curve are reference value that cannot be measured.




### Dimensions




Unit: mm

•For LGH-RVX3 series
The input power, the efficiency and the noise are based on the rating air volume, 230V/50Hz and horizontal installation.

# Remote Controller

## PZ-62DR-EA/EB


Control panel operation in
17 different languages.
Choose a desired language,
among the following languages.

| | | -EA | -EB |
|---|---|---|---|
| Language | English | ● | ● |
| | German | ● | ● |
| | Spanish | ● | ● |
| | French | ● | ● |
| | Italian | | ● |
| | Russian | ● | |
| | Portuguese | | ● |
| | Swedish | | ● |
| | Dutch | ● | |
| | Turkish | ● | |
| | Polish | ● | |
| | Greek | | ● |
| | Czech | ● | |
| | Hungarian | ● | |
| | Slovenian | | ● |
| | Bulgarian | ● | |
| | Danish | | ● |

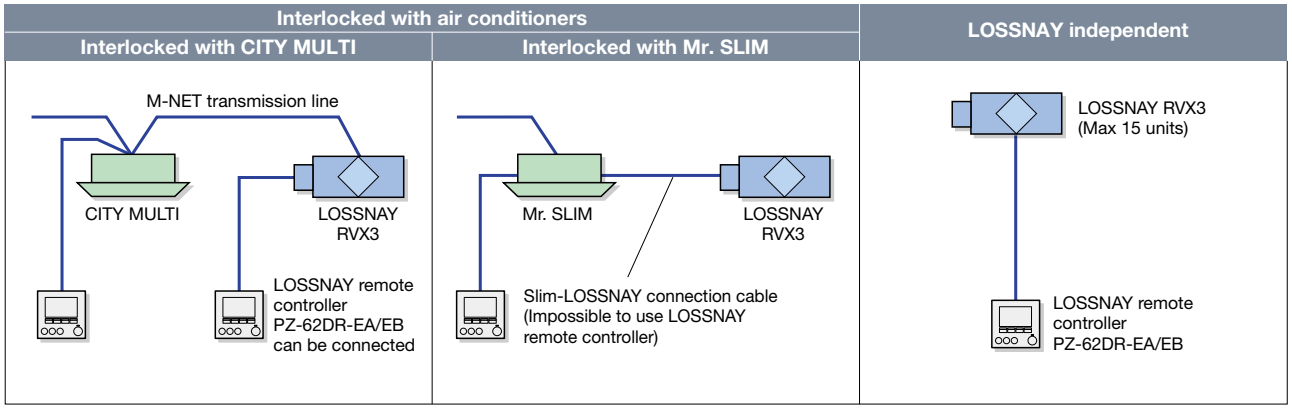
### Compatibility table

| Model | PZ-62DR-EA/EB | PZ-43SMF-E |
|---|---|---|
| Appearance |  |  |
| Fan speed selection | 4 fan speeds and Auto<br>(Auto is available when using a $CO_2$ sensor) | 2 of 4 fan speeds |
| Control with a $CO_2$ sensor (Mitsubishi Electric) | Yes<br>(Fan speed automatically changes from 25% to 100% depending on the $CO_2$ concentration*) | No |
| Control with a $CO_2$ sensor (field supply) | Yes<br>(Fan speed automatically changes from 25% to 100% depending on the $CO_2$ concentration*) | No |
| Ventilation mode selection | Energy recovery/Bypass/Auto | Energy recovery/Bypass/Auto |
| Night-purge | Yes | No |
| Function setting from remote controller | Yes | No |
| Bypass temp. free setting | Yes | No |
| Multi-stage airflow control | Yes<br>(Both supply and exhaust fan speeds can be set separately from 25% to 100% in 5% pitches) | No |
| ON/OFF timer | Yes | Yes |
| Auto-off timer | Yes | No |
| Weekly timer | Yes | No |
| Fan speed timer | Yes | No |
| Operation restrictions (ON/OFF, ventilation mode, fan speed) | Yes | No |
| Operation restrictions (fan speed skip setting) | Yes | No |
| Screen contrast adjustment | Yes | No |
| Language selection | Yes (17 languages) | No (English only) |
| $CO_2$ concentration indication | Yes<br>(Available when using a Mitsubishi Electric $CO_2$ sensor ) | No |
| Filter cleaning sign | Yes<br>(Maintenance interval can be changed) | Yes |
| LOSSNAY core cleaning sign | Yes | No |
| Error indication | Yes<br>(Displays model name, serial number, contact information) | Yes |
| Error history | Yes | No |
| OA/RA/SA temp. display | Yes | No |

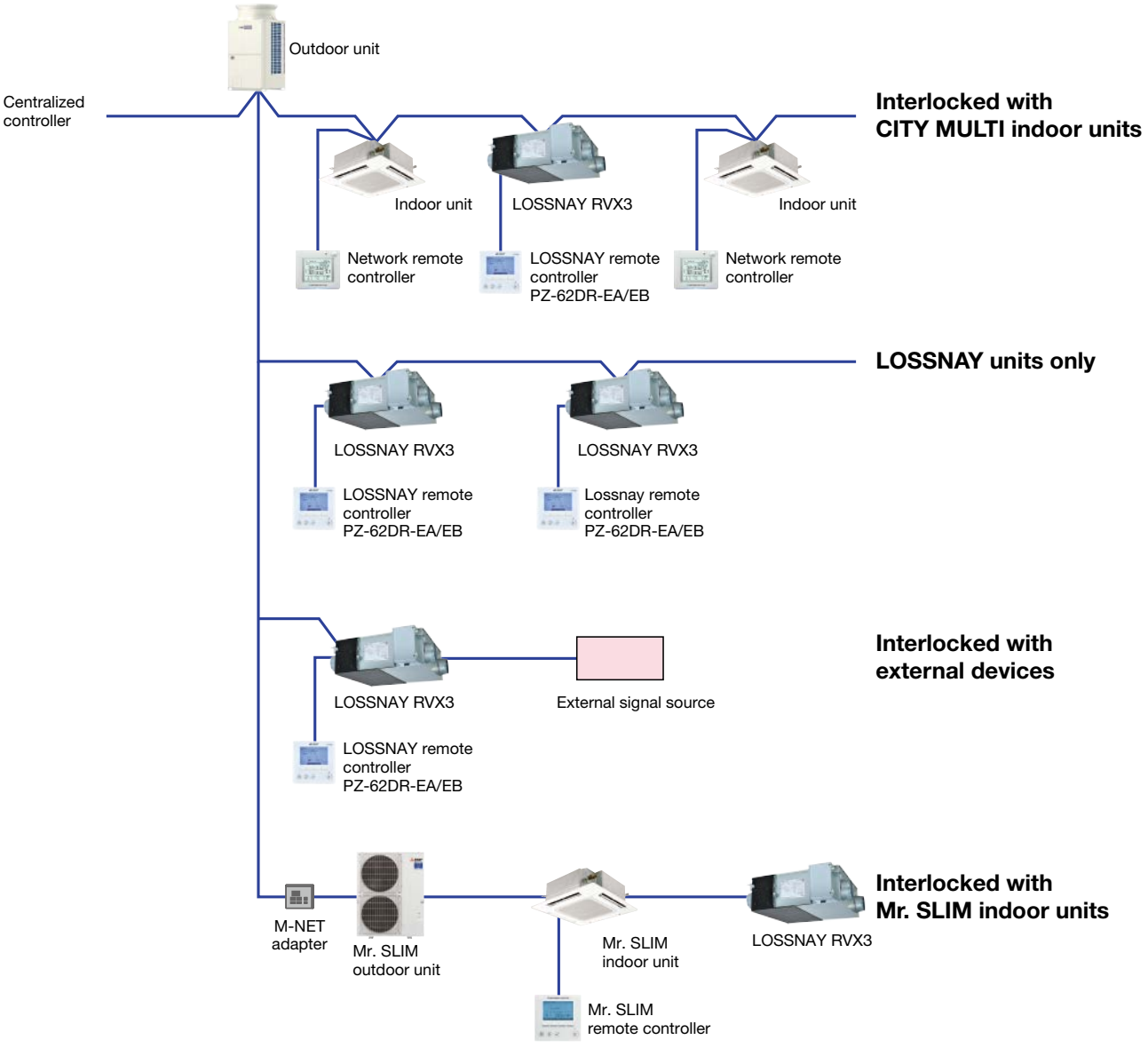
*When using a $CO_2$ sensor. Upper and lower limits may be changed.

# Control

## The new remote controller PZ-62DR-EA/EB enables simple control setting




## Centralized controller system



# Optional Parts

## Optional parts list

| | | | LOSSNAY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LGH-15RVX3-E | LGH-25RVX3-E | LGH-35RVX3-E | LGH-50RVX3-E | LGH-65RVX3-E | LGH-80RVX3-E | LGH-100RVX3-E | LGH-160RVX3-E | LGH-200RVX3-E |
| Optional parts | LOSSNAY remote controller | PZ-62DR-EA/EB | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | PZ-43SMF-E | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Standard filter (Coarse 60%) | PZ-15RF3-E | ● | | | | | | | | |
| | | PZ-25RF3-E | | ● | | | | | | | |
| | | PZ-35RF3-E | | | ● | | | | | | |
| | | PZ-50RF3-E | | | | ● | | | | | |
| | | PZ-65RF3-E | | | | | ● | | | | |
| | | PZ-80RF3-E | | | | | | ● | | ● | |
| | | PZ-100RF3-E | | | | | | | ● | | ● |
| | ePM1 75% filters | PZ-15RFP3-E | ● | | | | | | | | |
| | | PZ-25RFP3-E | | ● | | | | | | | |
| | | PZ-35RFP3-E | | | ● | | | | | | |
| | | PZ-50RFP3-E | | | | ● | | | | | |
| | | PZ-65RFP3-E | | | | | ● | | | | |
| | | PZ-80RFP3-E | | | | | | ● | | ● | |
| | | PZ-100RFP3-E | | | | | | | ● | | ● |
| | M6 filters | PZ-15RFM3-E | ● | | | | | | | | |
| | | PZ-25RFM3-E | | ● | | | | | | | |
| | | PZ-35RFM3-E | | | ● | | | | | | |
| | | PZ-50RFM3-E | | | | ● | | | | | |
| | | PZ-65RFM3-E | | | | | ● | | | | |
| | | PZ-80RFM3-E | | | | | | ● | | ● | |
| | | PZ-100RFM3-E | | | | | | | ● | | ● |
| | F8 filters | PZ-15RFH3-E | ● | | | | | | | | |
| | | PZ-25RFH3-E | | ● | | | | | | | |
| | | PZ-35RFH3-E | | | ● | | | | | | |
| | | PZ-50RFH3-E | | | | ● | | | | | |
| | | PZ-65RFH3-E | | | | | ● | | | | |
| | | PZ-80RFH3-E | | | | | | ● | | ● | |
| | | PZ-100RFH3-E | | | | | | | ● | | ● |
| | Duct silencer | PZ-100SS-E | ● | | | | | | | | |
| | | PZ-150SS-E | | ● | ● | | | | | | |
| | | PZ-200SS-E | | | | ● | ● | | | | |
| | | PZ-250SS-E | | | | | | ● | ● | ● | ● |
| | $CO_2$ sensor | PZ-70CSD-E | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | | PZ-70CSW-E | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Vertical installation parts | PZ-1VS-E | ● | ● | ● | ● | | | | | |
| | | PZ-2VS-E | | | | | ● | ● | ● | | |
| | Signal output terminal | PZ-4GS-E | ● | ● | ● | ● | ● | ● | ● | ● | ● |

Note: Please refer to each product page for required number of pieces/sets.

# Filters

## PZ-**RF3-E

**Standard filter**

| Filter | | | | | | LOSSNAY | |
|---|---|---|---|---|---|---|---|
| Filter material | Installation position | Classification | | Model name | Piece/set included | Applicable model | Required set/unit |
| | | ISO16890: 2016 | EN779: 2012 | | | | |
| Non-woven fabric | Before HEX | Coarse 60% | — | PZ-15RF3-E | 2 | LGH-15RVX3-E | 1 |
| | | | | PZ-25RF3-E | 2 | LGH-25RVX3-E | 1 |
| | | | | PZ-35RF3-E | 2 | LGH-35RVX3-E | 1 |
| | | | | PZ-50RF3-E | 2 | LGH-50RVX3-E | 1 |
| | | | | PZ-65RF3-E | 2 | LGH-65RVX3-E | 1 |
| | | | | PZ-80RF3-E | 2 | LGH-80RVX3-E | 1 |
| | | | | | | LGH-160RVX3-E | 2 |
| | | | | PZ-100RF3-E | 2 | LGH-100RVX3-E | 1 |
| | | | | | | LGH-200RVX3-E | 2 |

## PZ-**RFP3-E

**ePM1 75% filter**

| Filter | | | | | | LOSSNAY | |
|---|---|---|---|---|---|---|---|
| Filter material | Installation position | Classification | | Model name | Piece/set included | Applicable model | Required set/unit |
| | | ISO16890: 2016 | EN779:2012 | | | | |
| Pleated filter | After HEX | ePM1 75% | — | PZ-15RFP3-E | 1 | LGH-15RVX3-E | 1 |
| | | | | PZ-25RFP3-E | 2 | LGH-25RVX3-E | 1 |
| | | | | PZ-35RFP3-E | 2 | LGH-35RVX3-E | 1 |
| | | | | PZ-50RFP3-E | 2 | LGH-50RVX3-E | 1 |
| | | | | PZ-65RFP3-E | 2 | LGH-65RVX3-E | 1 |
| | | | | PZ-80RFP3-E | 2 | LGH-80RVX3-E | 1 |
| | | | | | | LGH-160RVX3-E | 2 |
| | | | | PZ-100RFP3-E | 2 | LGH-100RVX3-E | 1 |
| | | | | | | LGH-200RVX3-E | 2 |

## PZ-**RFM3-E

**M6 filter**

| Filter | | | | | | LOSSNAY | |
|---|---|---|---|---|---|---|---|
| Filter material | Installation position | Classification | | Model name | Piece/set included | Applicable model | Required set/unit |
| | | ISO16890: 2016 | EN779: 2012 | | | | |
| Pleated filter | Before HEX | — | M6 | PZ-15RFM3-E | 1 | LGH-15RVX3-E | 1 |
| | | | | PZ-25RFM3-E | 2 | LGH-25RVX3-E | 1 |
| | | | | PZ-35RFM3-E | 2 | LGH-35RVX3-E | 1 |
| | | | | PZ-50RFM3-E | 2 | LGH-50RVX3-E | 1 |
| | | | | PZ-65RFM3-E | 2 | LGH-65RVX3-E | 1 |
| | | | | PZ-80RFM3-E | 2 | LGH-80RVX3-E | 1 |
| | | | | | | LGH-160RVX3-E | 2 |
| | | | | PZ-100RFM3-E | 2 | LGH-100RVX3-E | 1 |
| | | | | | | LGH-200RVX3-E | 2 |

## PZ-**RFH3-E

**F8 filter**

| Filter | | | | | | LOSSNAY | |
|---|---|---|---|---|---|---|---|
| Filter material | Installation position | Classification | | Model name | Piece/set included | Applicable model | Required set/unit |
| | | ISO16890: 2016 | EN779: 2012 | | | | |
| Pleated filter | After HEX | — | F8 | PZ-15RFH3-E | 1 | LGH-15RVX3-E | 1 |
| | | | | PZ-25RFH3-E | 2 | LGH-25RVX3-E | 1 |
| | | | | PZ-35RFH3-E | 2 | LGH-35RVX3-E | 1 |
| | | | | PZ-50RFH3-E | 2 | LGH-50RVX3-E | 1 |
| | | | | PZ-65RFH3-E | 2 | LGH-65RVX3-E | 1 |
| | | | | PZ-80RFH3-E | 2 | LGH-80RVX3-E | 1 |
| | | | | | | LGH-160RVX3-E | 2 |
| | | | | PZ-100RFH3-E | 2 | LGH-100RVX3-E | 1 |
| | | | | | | LGH-200RVX3-E | 2 |

# Duct silencer

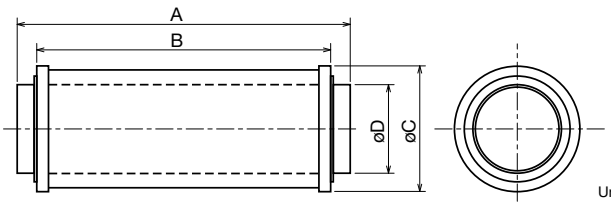
- The duct silencer connects to the LOSSNAY unit to reduce airflow noise
- Four sizes are available to cover a wide range of duct sizes

## Specifications

| Model | Airflow [m³/h] | Attenuation of sound power level [dB] for center frequency (Discharge) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 62.5Hz | 125Hz | 250Hz | 500Hz | 1000Hz | 2000Hz | 4000Hz | 8000Hz |
| PZ-100SS-E | 50 | 0 | 3 | 5 | 7 | 6 | 6 | 6 | 8 |
| | 150 | 0 | 3 | 6 | 7 | 7 | 7 | 7 | 9 |
| PZ-150SS-E | 250 | 0 | 1 | 5 | 8 | 15 | 21 | 20 | 14 |
| | 350 | 0 | 1 | 4 | 8 | 14 | 21 | 21 | 16 |
| PZ-200SS-E | 500 | 0 | 1 | 4 | 7 | 13 | 18 | 16 | 9 |
| | 650 | 0 | 1 | 3 | 8 | 12 | 17 | 14 | 6 |
| PZ-250SS-E | 800 | 0 | 2 | 4 | 12 | 22 | 21 | 14 | 13 |
| | 1000 | 0 | 1 | 4 | 12 | 22 | 20 | 14 | 13 |

## Dimensions

| Model | A | B | C | D | Connecting duct | Weight (kg) |
|---|---|---|---|---|---|---|
| PZ-100SS-E | 450 | 400 | 152 | 99 | ø100 | 1.9 |
| PZ-150SS-E | 560 | 500 | 202 | 149 | ø150 | 3.5 |
| PZ-200SS-E | 660 | 600 | 252 | 199 | ø200 | 5.3 |
| PZ-250SS-E | 660 | 600 | 332 | 249 | ø250 | 8.9 |




Unit: mm

## $CO_2$ sensor

For monitoring $CO_2$ level and optimize operation with variable air flow control according to $CO_2$ level.

### PZ-70CSD-E

**Duct-mounted**
**$CO_2$ sensor**

### PZ-70CSW-E

**Wall-mounted**
**$CO_2$ sensor**


*Please follow the installation manual when you install this product.

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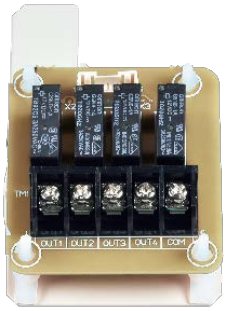
## Signal output terminal

Signal output terminal for control

### PZ-4GS-E

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## Installation Parts

Vertical installation parts for RVX3

### PZ-1VS-E
### PZ-2VS-E

*Please follow the installation manual when you install RVX3 series vertically.